

Amendments to the Drawings:

The attached sheet of drawings includes changes to Figure 2, whereby reference numbers 38A and 38B are added. This sheet, which includes Figure 2, replaces the original sheet including Figure 2.

Attachment: One Replacement Sheet

REMARKS

Claims 1-38 are pending. Claims 1, 12, 25-26, 33 and 36-38 have been amended. Claims 26 and 38 are being amended to incorporate language of claims 25 and 37, respectively. Support for the amendment to claim 33 can be found, for example, in paragraph [0028] of the Published Application 2007/0131795. The amendments to the rest of the claims are to correct typographical errors only.

Further, Figure 2 has been amended to add reference numbers 38A and 38B, which were inadvertently omitted in the figures originally filed. Support for these additions can be found in paragraph [0038] of the Published Application 2007/0131795, which describes the features of separate flow paths (indicated by the dashed lines 38A and 38B) of the fluid components. One sheet of replacement drawings is submitted herewith for approval.

No new matter has been introduced by way of the above amendments.

Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, 4-15, 18, 25-27 and 36-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,320,290 (hereafter "Rohs").

Claim 1 is directed to a device for dispensing a multi-component composition, the device comprising, among others, a plurality of fluid component inlets and at least one carrier fluid inlet adapted to communicate with a source of a pressurized carrier fluid, a diffuser surface located downstream from the plurality of fluid component inlets and the at least one carrier fluid inlet; and an outlet extending through the diffuser surface, wherein the diffuser surface is adapted to receive fluid components thereon, and has a shape effective to direct and maintain each received fluid component in a different flow path toward the outlet for mixing and dispensing therethrough by the pressurized carrier fluid from the at least one carrier fluid inlet.

Rohs does not anticipate claim 1 because Rohs does not describe or suggest a device for dispensing multiple fluid components that comprises a plurality of fluid component inlets and at least one carrier fluid inlet. Rather, Rohs' device is directed to a fuel injection nozzle for a combustion engine. A single feed duct for the injection medium (e.g., fuel) is featured (*see, e.g.,* 9 in Figure 1). In other words, Rohs' device does not have multiple fluid

component inlets, thus is incapable of directing multiple fluid components from separate and respective fluid component inlets and dispensing them through the outlet.

Further, Rohs does not disclose a diffuser surface adapted to direct the plurality of fluid components in respective, different flow paths, because there is only one fluid medium being dispensed. Accordingly, Rohs does not anticipate claim 1.

Claims 2, 4-15 and 18 depend on claim 1, thus, they are also novel in view of Rohs. In addition, claim 2 contains additional features that are not disclosed or suggested in Rohs. Claim 2 recites that the outlet is aligned with the at least one carrier fluid inlet. Rohs' injection nozzle does not have this feature. Instead, Rohs' outlet 16 opens to a turbulence chamber 18, away from the feed duct 9.

Likewise, claim 11 contains additional features that are not disclosed or suggested in Rohs. Claim 11 further recites a plurality of different fluid component sources each in communication with a different fluid component inlet, and a source of pressurized carrier fluid in communication with the carrier fluid inlet. Rohs' injection nozzle does not have a plurality different fluid component sources, because fuel is the sole fluid source therein. From the foregoing, dependent claims 2, 4-15 and 18 are also novel in view of Rohs.

Claims 25-27 and 36-38 are directed to method of dispensing multiple fluid components from a device of claim 1. As discussed above, Rohs' injection nozzle is not capable of directing multiple fluid components from separate and respective fluid component inlets and dispensing them through the outlet. Accordingly, claims 25-27 and 36-38 are also novel in view of Rohs.

Claims 1, 2, 4-15, 18, 25-27, and 36-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,560,545 (hereafter "Grogan").

Grogan does not anticipate claim 1 because Grogan does not disclose or suggest at least one carrier fluid inlet adapted to communicate with a source of a pressurized carrier fluid. Instead, Grogan is limited to a dual compartment dispenser, in which two fluid components are suctioned into a pump chamber to be mixed and dispensed (*see, e.g.*, claim 1 and col. 4, lines 1-9). In other words, rather than using a pressurized carrier fluid that forces the fluid components to mix and expel from the outlet as in the claimed device, Grogan's fluid components are

pumped toward the nozzle by suction. Because Grogan's device does not have a carrier fluid inlet, it does not anticipate claim 1.

Claims 2, 4-15 and 18 depend on claim 1, thus, they are also novel in view of Grogan. Further, claims 2, 10 and 11 contain additional features that are not disclosed or suggested in Grogan because they further define the carrier fluid inlet. Accordingly, dependent claims 2, 4-15 and 18 are not anticipated by Grogan.

Claims 25-27 and 36-38 are directed to methods of dispensing multiple fluid components from a device of claim 1, the method comprising directing pressurized carrier fluid from the at least one carrier fluid inlet through the outlet, thereby mixing the fluid components present at the outlet and dispensing the composition through the outlet. Grogan does not anticipate these claims because Grogan's device does not utilize carrier fluid to mix the fluid components. Rather, in Grogan, the fluid components are directed to the nozzle for mixing by suction.

From the foregoing, claims 1, 2, 4-15, 18, 25-27 and 36-38 are novel in view of Grogan.

Claim Rejections Under 35 U.S.C. § 103

Claims 3, 16-17, 19-24 and 28-35 are rejected under 35 U.S.C. § 103(a) as obvious over Rohs in view of U.S. Patent No. RE31,163 (hereafter "Gardner").

Applicants respectfully submit that the Office Action has not established a *prima facie* case of obviousness. First, Rohs is not analogous art and cannot be a basis for the obviousness rejection. Second, even assuming for argument's sake that Rohs may be a basis for the obviousness rejection, the Office Action has failed to articulate a reason for one of ordinary skill in the art to modify Rohs to arrive at the present claimed invention.

For a reference to be analogous art, it needs to be "within the field of the inventor's endeavor." If the reference is outside that field, it must be determined whether the reference is "reasonably pertinent to the particular problem with which the inventor was involved."

Rohs is not analogous art because Rohs is in a different field from that of Applicants' endeavor. The claimed device in the present application is used to mix and dispense a plurality of (*i.e.*, at least two) fluid components with the aid of a pressurized carrier fluid. Upon mixing, the fluid components react with each other to form an adhesive (*e.g.*, medical sealant). In contrast, Rohs' device is an injection nozzle for injecting fuel in a combustion engine. Rohs' injection nozzle contains a single fluid component, *i.e.*, the fuel.

Further, Rohs is not reasonably pertinent to the particular problem with which the present inventors were concerned. The present application addresses the problem of clogging of multiple fluid components (that are reactive to each other when in contact) before being dispensed. The claimed device is capable of directing the multiple fluid components to an outlet via different flow paths to avoid mixing before being expelled from the outlet (*see*, Figure 2). Rohs does not concern itself with any type of mixing or blending, because a single fluid medium is used. Accordingly, Rohs is not analogous art, and thus cannot be a basis for an obviousness rejection.

Even assuming that Rohs may be a basis for the obviousness rejection, the Office Action has failed to articulate a reason for one of ordinary skill in the art to modify Rohs to arrive at the present claimed invention. As discussed above, the differences between the claimed device and Rohs' injection nozzle include at least the following three features: (1) multiple fluid component inlets, (2) at least one carrier fluid inlet, and (3) a diffuser surface adapted to receive fluid components thereon, and has a shape effective to direct and maintain each received fluid component in a different flow path toward the outlet for mixing and dispensing therethrough by the pressurized carrier fluid from the at least one carrier fluid inlet. Rohs' injection nozzle does not have any of the above features. The Office Action does not articulate a reason for one skilled in the art to modify the teachings in Rohs to supply the missing features identified above, other than stating that it would have been an obvious matter of design choice to modify Rohs.

Gardner does not supply the features wanting in Rohs. Gardner does not disclose a carrier fluid inlet. Rather, compressed air and a fluid component are combined together in a single hose (*see*, col. 6, lines 32-36). Further, the claimed device of the present application comprises a diffuser surface for directing the fluid components in different flow paths toward the

outlet. As discussed herein, this feature prevents the fluid components from mixing with each other before reaching the outlet. Gardner does not disclose or suggest this feature. Rather, Gardner's device directs the fluid components into a mixing chamber before heading to the outlet. Accordingly, there is no articulated reason nor can there be one for a skilled person in the art to modify the teachings of Rohs (or in combination with Gardner) to arrive at the claimed device.

Conclusion

In view of the above amendments and remarks, allowance of claims 1-38 is respectfully requested. A good faith effort has been made to place this application in condition for allowance. However, should any further issue require attention prior to allowance, the Examiner is requested to contact the undersigned at (206) 622-4900 to resolve the same.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,
SEED Intellectual Property Law Group PLLC

/Hai Han/
Hai Han, Ph.D.
Registration No. 54,150

HXH:mcs

Enclosure:
One Sheet of Replacement Drawings (Figure 2)

701 Fifth Avenue, Suite 5400
Seattle, Washington 98104
Phone: (206) 622-4900
Fax: (206) 682-6031

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